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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Paper No. 14

Application Number: 09/407,544
Filing Date: September 28, 1999
Appellant(s): CWIAKALA ET AL.

Kevin P. Radigan

For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 4/3/2003.

***(1) Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

***(2) Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

***(3) Status of Claims***

The statement of the status of the claims contained in the brief is correct.

***(4) Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

***(5) Summary of Invention***

The summary of invention contained in the brief is correct.

***(6) Issues***

The appellant's statement of the issues in the brief is correct.

***(7) Grouping of Claims***

Appellant's brief includes a statement that claims of group of claims1-42, 44, 46, and 47 and group of claims 43 and 45 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

***(8) Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

***(9) Prior Art of Record***

| | | |
|---|---|---|
| 5,301,323 | MAEURER et al | 4-1994 |
| 6,434,637 | D'ERRICO | 8-2002 |

***(10) Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeurer et al., US patent No. 5,301,323 in view of D'Errico, US patent No. 6,434,637.

As to claims 1, 14, 27, and 28, Maeurer et al teach a method of managing input/output (I/O) of a computing environment, said method comprising:

selecting a channel path from a plurality of channel paths to be used in adjusting an I/O configuration of said computing environment, said selecting being based on a plurality of characteristics [col. 3, lines 49-50; col. 3, lines 55-56; col. 7, lines 34-39; col. 7, lines 65-67; col. 9, lines 28-35, col. 10, lines 8-15]; and

dynamically adjusting said I/O configuration using the selected channel path [col. 3, lines 47-65; col. 10, line 41-col. 11, line 52].

Though Maeurer et al teach the selection of a channel path from a plurality of channel paths, which are resided between a processor and a plurality of I/O controllers [fig. 1] for servicing I/O workloads, is based on a utilization of a channel path [col. 8, lines 20-22], Maeurer et al do not explicitly disclose the plurality of characteristics include at least in part of an I/O velocity resulting from selecting the channel path.

D'Errico teaches [col. 14, lines 42-65] a selection of a channel path from a plurality of channel paths, which are resided between a processor and a plurality of I/O controllers [fig. 1] for servicing I/O workloads, is based on a channel path utilization [col. 14, lines 42-65] including at least in part of an I/O velocity [col. 14, lines 63-65] resulting from selecting the channel path.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Maeurer et al and D'Errico because they both teach a selection of a channel path from a plurality of channel paths based on a path utilization and the D'Errico's teaching of the path utilization further including at least in part of an I/O velocity resulting from selecting the channel path would increase accuracy [D'Errico: col. 4, lines 47-52] in reflecting a unit measure of bandwidth utilization of Maeurer et al.

As to claims 2, 15, and 29, Maeurer et al teach attaching the selected channel path to a subsystem of said I/O configuration [see table 1 in col. 10-col. 11].

As to claims 3, 16, and 30, Maeurer et al teach said selected channel path and said subsystem are associated with a workload executing within at least one logical partition of said computing environment [col. 1, lines 24-31], and the dynamically adjusting provides additional resources [col. 2, lines 59-62; table 1 in col. 10-col. 11] to said workload.

As to claims 4, 17, and 31, Maeurer et al teach said selected channel path was removed from another workload executing within at least one logical partition, thereby reducing resources of said another workload [table 1 in col. 10-col. 11].

As to claims 5, 18, and 32, Maeurer et al teach removing attachment of the selected channel path from a subsystem of said I/O configuration [table 1 in col. 10-col. 11].

As to claims 6, 19, and 33, Maeurer et al teach said selecting is further based on at least one of an impact on response time to achieve specific workload goals, contention on a subsystem of said I/O configuration, availability [col. 4, line 68-col. 4, line 2; col. 9, lines 28-35] characteristics of said channel path, and complexity of the resulting I/O configuration.

As to claims 7, 20, and 34, Maeurer et al teach determining that said I/O configuration is to be adjusted [col. 7, lines 3-4; table 1 in col. 10-col. 11].

As to claims 8, 21, and 35, Maeurer et al teach determining comprises using one or more workload goals in making the determination [col. 7, lines 65-67].

As to claims 9, 22, and 36, Maeurer et al teach the one or more workload goals are associated with workloads of a group of partitions of said computing environment [col. 1, lines 24-31; col. 2, lines 50-52].

As to claims 10, 23, and 37, Maeurer et al teach determining comprises consulting with one or mere workload managers of said computing environment in making the determination [col. 4, lines 37-41].

As to claims 11, 24, and 38, Maeurer et al teach determining comprises using measured subsystem performance being within an average target range [col. 10, lines 54-58].

As to claims 12, 25, and 39, Maeurer et al teach projecting an impact of the adjustment on one or more subsystems to be effected by the adjustment, prior to said dynamically adjusting [col. 9, lines 22-26; col. 9, lines 41-45; col. 9, line 60-col. 10, line 2].

As to claims 13, 26, and 40, Maeurer et al teach dynamically adjusting when the impact is acceptable [col. 9, lines 41-45; col. 9, line 60-col. 10, line 2].

As to claim 41, Maeurer et al teach said plurality of channel paths include one or more channel paths that can be added and one or more channel paths that can be deleted [col. 10, lines 41-43], D'Errico teaches the selecting comprises choosing the channel path from the plurality of channel paths which satisfies a best option, the best option taking into consideration the I/O velocity resulting from selecting the channel path [col. 14, lines 63-65], and Maeurer et al teach the selecting concurrently [col. 9, lines 36-41; col. 9, lines 50-53; table 1 in col. 10-col. 11] takes into consideration the one or more channel paths that can be added and the one or more channel paths that can be deleted

As to claim 42, Maeurer et al teach moving the selected channel path from one port to another port [col. 9, lines 36-41; col. 9, lines 50-53; table 1 in col. 10-col. 11].

Claims 43 and 45-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Maeurer et al., US patent No. 5,301,323.

As to claim 43, Maeurer et al teach a method of managing input/output (I/O) configurations of a computing environment, said method comprising:

selecting a channel path from a plurality of channel paths to be used in adjusting an I/O configuration of said computing environment, said selecting being based on a plurality

of characteristics [col. 3, lines 49-50; col. 3, lines 55-56; col. 7, lines 34-39; col. 7, lines 65-67; col. 9, lines 28-35, col. 10, lines 8-15]; and

dynamically adjusting said I/O configuration using the selected channel path [col. 3, lines 47-65; col. 10, lines 41-43].

As to claims 45-47, reasons for rejection are set forth above for claims 6, 41, and 42, respectively.

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeurer et al. as applied to claim 43 above, and further in view of D'Errico, US patent No. 6,434,637.

As to claim 44, reasons for rejection are set forth above for claim 1.

***(11) Response to Argument***

The Examiner summarizes the various points raised by the Appellants and addresses replies individually.

The Appellants argue in substance that a) the use of I/O velocity of D'Errico is for selecting a path not for adjusting or changing an I/O configuration and b) Maeurer et al teach only one characteristic not a plurality of characteristics.

For the point a), Maeurer et al and D'Errico both teach selecting a path based on a path utilization and Maeurer et al teach a path selection is for adjusting an I/O configuration.

And for the point b), Maeurer et al teach a plurality of characteristics characteristics [col. 3, lines 49-50; col. 3, lines 55-56; col. 7, lines 34-39; col. 7, lines 65-67; col. 9, lines 28-35, col. 10, lines 8-15].

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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April 23, 2003

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